



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,723	12/12/2003	Christophe Lero	RCIF 1002-2	1978
22470	7590	12/06/2006	EXAMINER	
HAYNES BEFFEL & WOLFELD LLP P O BOX 366 HALF MOON BAY, CA 94019			FOX, CHARLES A	
			ART UNIT	PAPER NUMBER
			3652	

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/734,723

Applicant(s)

LERO ET AL.

Examiner

Charles A. Fox

Art Unit

3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,7-9,11-15 and 18 is/are rejected.
- 7) ☒ Claim(s) 4-6,16,17,19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Art Unit: 3652

Claim Objections

Claims 4-6,16,17,19 and 20 are objected to because of the following informalities: lines 15 and 16 of claim 4 has the limitation "incorporate a first (6) and second (7) moving arms". This is not grammatically correct. It should read something like -- incorporates first (6) and second (7) moving arms" or "incorporates a first (6) and a second (7) moving arm". Appropriate correction is required. Applicant is urged to review all claims for proper grammatical relationships.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,7-9,11-15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenquist et al. in view of Cheng and further in view of Whitcomb. Regarding claims 1,2,7-9,11-15 and 18 Rosenquist et al. US 6,188,323 teaches a wafer loading device comprising:

a port for moving wafers into and out of a process device;

a shutter for opening and closing said port;

said shutter moving in a substantially vertical direction to open and close said port;

a wafer handling tool for moving wafers through said port;

Art Unit: 3652

wherein a wafer on said handler can be moved from one side of the port to a second side of said port;

a sensing device for sensing the presence of wafers and their relative thickness. Rosenquist does not teach the type or location of said wafer handling device relative to the shutter. Cheng US 6,053,688 teaches a wafer handling device comprising:

a shutter (152) for opening and closing a port;

a wafer pick up device (170) linked to said shutter;

said pick up device moves wafers by picking them up from their bottom surface.

Cheng does not teach picking the wafers up by their rim. Whitcomb US 6,468,022 teaches a wafer handling device comprising:

at least two arms (50a,50b);

rollers (21a,b,c) for engaging the edges of said wafer for handling thereof;

wherein said wafer can be reoriented via said rollers as needed;

wherein said drive roller is selectively engaged with said wafer and moves from an inactive position to an active position;

wherein said handler has a third arm (23) operatively attached to the said two arms;

wherein said arms are coupled together such that said wafer can move at right angles to the structure which the arms are mounted and that said arms are connected such that movement of the third arm will cause movement in the first or second arm. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Rosenquist with a handling arm as taught by Cheng in

Art Unit: 3652

order to simplify the device by having only one vertically moving assembly and to use rollers as taught by Whitcomb in order to allow the device to align a wafer as it is being moved into a process device thereby saving time via the concurrent alignment and moving steps.

Regarding claim 11 Rosenquist et al. further teach:

placing arms for a sensor such that in a first stowed position they lie in a vertical plane parallel to the plane of said shutter

wherein said arms are mounted on the top of said shutter;

wherein when in said first stowed position they lie between the two vertical planes extending from the two vertical sides of the shutter. It would have been obvious to one of ordinary skill in the art, at the time of invention to place any device for extending into the wafer carrier on the top of the shutter as taught by Rosenquist in order to simplify the device by using only one vertical movement assembly, thereby reducing the cost of building and maintaining the device.

Response to Amendment

The amendment to the specification filed on July 10, 2006 and the amendment to the claims filed on October 2, 2006 have been entered into the record.

Allowable Subject Matter

Claims 4-6,16,17,19 and 20 will be allowed once the objection to claim 4 is addressed. The allowable subject matter lies in the first and second arm changing position to grip a wafer from a side by side stowed position which is not taught or suggested by the closest prior art of Whitcomb.

Art Unit: 3652

Response to Arguments

Applicant's arguments filed July 10, 2006 have been fully considered but they are not persuasive. The Rosenquist reference is related to wafer transfer as it is located on a port to a process system, which always incorporates a transfer mechanism for wafers. While Rosenquist treat the transfer mechanism as well known the device is directed to a port which allows the transfer of wafers from a sealed pod to a process system and as such is relevant art. The other references are added to teach structure for the transfer device that is not provided by Rosenquist. As such the relevant cited art teaches all of the limitations of the rejected claims as written. Without citing specific structure to encompass the means plus function language any structure that can perform the function meets the limitation found in the claim. Regarding claim 6 Rosenquist teach a pair of arms that meet the limitations of this claim, while they do not pick up a wafer they teach the positioning of arms that allow the device to operate. Therefore one of ordinary skill in the art would mount the arms taught by Cheng and Whitcomb in a manner as taught by Rosenquist. As such claims 1,2,7-9,11-15 and 18 are finally rejected.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 3652

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 571-272-6923. The examiner can normally be reached between 7:00-4:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached at 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CA Fox 12-5-06
Charles A. Fox
Examiner
Art Unit 3652